



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada
Room 100,
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6
Bid Fax: (204) 983-0338

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

Proposal To: Public Works and Government
Services Canada

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Proposition aux: Travaux Publics et Services
Gouvernementaux Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Public Works and Government Services Canada - Western
Region
Room 100
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6

Title - Sujet Ultra High Pressure Liquid Chromato	
Solicitation No. - N° de l'invitation 01586-150482/A	Date 2015-12-22
Client Reference No. - N° de référence du client 01586-150482	
GETS Reference No. - N° de référence de SEAG PW-\$WPG-070-9714	
File No. - N° de dossier WPG-5-38225 (070)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-02-01	Time Zone Fuseau horaire Central Standard Time CST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Barenz, Leanne	Buyer Id - Id de l'acheteur wpg070
Telephone No. - N° de téléphone (204) 229-6909 ()	FAX No. - N° de FAX (204) 983-7796
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF AGRICULTURE AND AGRI-FOOD 5403-1 AVE S. P.O.BOX 3000 MAIN LETHBRIDGE Alberta T1J4B1 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION	2
1.1 SECURITY REQUIREMENTS	2
1.2 REQUIREMENT	2
1.3 DEBRIEFINGS	2
1.4 TRADE AGREEMENTS	2
PART 2 - BIDDER INSTRUCTIONS	2
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS	2
2.2 SUBMISSION OF BIDS	2
2.3 ENQUIRIES - BID SOLICITATION	2
2.4 APPLICABLE LAWS	3
PART 3 - BID PREPARATION INSTRUCTIONS	3
3.1 BID PREPARATION INSTRUCTIONS	3
PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION	4
4.1 EVALUATION PROCEDURES	4
4.2 BASIS OF SELECTION	4
PART 5 - CERTIFICATIONS AND ADDITIONAL INFORMATION	4
5.1 CERTIFICATIONS REQUIRED WITH THE BID	4
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION	4
PART 6 - RESULTING CONTRACT CLAUSES	5
6.1 SECURITY REQUIREMENTS	5
6.2 REQUIREMENT	5
6.3 STANDARD CLAUSES AND CONDITIONS	5
6.4 MANDATORY DELIVERY DATE	5
6.5 AUTHORITIES	5
6.6 PAYMENT	6
6.7 INVOICING INSTRUCTIONS	7
6.8 CERTIFICATIONS	7
6.9 APPLICABLE LAWS	7
6.10 PRIORITY OF DOCUMENTS	7
6.11 SACC MANUAL CLAUSES	7
6.12 INSURANCE	7
ANNEX A	8
REQUIREMENT	8
ANNEX B	10
BASIS OF PAYMENT	10
ANNEX C	11
EVALUATION CRITERIA	11

PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There is no security requirement applicable to this solicitation.

1.2 Requirement

The Work to be performed is detailed under Article 6.2 of the resulting contract clauses.

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.4 Trade Agreements

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), North American Free Trade Agreement (NAFTA), and the Agreement on Internal Trade (AIT).

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2015-07-03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days

Insert: 120 days

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is

eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Manitoba.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that Bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (1 hard copy)
Section II: Financial Bid (1 hard copy)
Section III: Certifications (1 hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

3.1.1 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**4.1 Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation**4.1.1.1 Mandatory Technical Criteria**

- a) Ability to perform the full scope of the work as described in Annex "A"
- b) Provision of firm pricing for all items in Annex "B"

4.1.2 Financial Evaluation

SACC *Manual* Clause A0220T (2014-06-26), Evaluation of Price

4.2 Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed Declaration Form (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to

provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

5.2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\)](#) - [Labour's website](#).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

There is no security requirement applicable to this Contract.

6.2 Requirement

The Contractor must provide the items detailed under the "Requirement" at Annex "A".

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010A](#) (2015-09-03), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Mandatory Delivery Date

All the deliverables must be received on or before March 31, 2016.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Leanne Barenz
Supply Specialist

Public Works and Government Services Canada
Acquisitions Branch
100-167 Lombard Ave
Winnipeg, MB., R3C 2Z1

Telephone: 204-229-6909
Facsimile: 204-983-7796
E-mail address: leanne.barenz@pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Project Authority

The Project Authority for the Contract is:

Name: ____TBD____
Title: ____
Organization: ____
Address: ____

Telephone : ____
Facsimile: ____
E-mail address: ____

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative

Name: ____
Title: ____
Organization: ____
Address: ____

Telephone : ____
Facsimile: ____
E-mail address: ____

6.6 Payment

6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price as specified in Annex B for a cost of \$ ____TBD____. Customs duties are excluded and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.6.2 Limitation of Price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

6.6.3 Single Payment

SACC Manual clause H1000C (2008-05-12) Single Payment.

6.7 Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

6.8 Certifications

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Manitoba.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions 2010A (2015-09-03) Goods (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated __TBD__

6.11 SACC Manual Clauses

SACC Manual clause B7500C (2006-06-16), Excess Goods

6.12 Insurance

SACC Manual clause G1005C (2008-05-12), Insurance

ANNEX A

REQUIREMENT

UHPLC-MS/MS

Ultra High Pressure Liquid Chromatograph Tandem Mass Spectrometer

Specifications

1. The system must include a UHPLC system and pump, as well as tandem MS/MS (triple quad, QQQ), autosampler with tray and syringe, Nitrogen generator as well as workstation PC (computer and monitor) and software (with data analysis license) required for running the instrument, including control features and capability to separate, identify and quantify molecules of interest.
2. Must include installation, set-up and specification testing.
3. Must include familiarization training (3 days minimum) with on-site assistance.
4. Autosampler trays must have the capacity for at least 120 vials and include injection loop.
5. HPLC Syringe must be included.
6. Power must be suitable for Canadian standards: 100-120 V (or 200-220 VAC), 1000 VA max, 50/60 Hz, 15A circuit.
7. Must have a multicolumn thermostat with a capacity of 6-8 columns, a temperature range of 4-110 °C and include heat exchanger and required fittings.
8. 6 port valve is necessary, including valve head.
9. Pump needs noise suppression system.
10. Must have a LC/MS APCI Source including spray chamber, corona discharge needle, nebulizer, APCI vaporizer and test calibration kit.
11. Must have a high speed pump with good power range (1300 bar) allowing for 5 mL/min flow, binary high pressure mixing. Should come with seal wash, tool kit, solvent cabinet, bottles.
12. Scan modes must include MS scan, MS/MS product ion scan, Multiple Reaction Monitoring (MRM), MS/MS neutral loss/gain scan, precursor ion scan, Selected Ion Monitoring (SIM).
13. Must have the capability to accommodate additional ionization modes (such as APPI).
14. Single point of control: Method must be capable to fully control the UHPLC system and triple quadrupole (and communication between the two) with a single point data system (so that should conditions not be optimum, the system stops injection of the sample).
15. Full auto-tune optimization of the instrument sensitivity and mass calibration.
16. Sensitivity: Signal to noise (S:N) ratio requirements should be at least 100,000:1 (MS/MS mode, electrospray on-column, for both ESI positive and negative). The higher the ratio, the better¹.
17. Sensitivity for instrument detection limit must be of at least 0.75 fg reserpine/chloramphenicol in positive/negative mode (or equivalent).
18. Linear dynamic range must be of at least 1×10^6 (the higher is the linear dynamic range, the better²).
19. Mass range must be from 2-2,050 Da.
20. Mass stability: 0.1 Da or less in 24 hrs.
21. Maximum scan speed must be at least 12,000 Da/second.
22. Maximum Multiple Reaction Monitoring (MRM) acquisition rate must be 500 MRMs/second or more.
23. MRM transitions should be of minimum 450 per time segment, with a minimum of 40,000 ion transitions per method.

-
24. Minimum MRM dwell time must be 1 ms.
 25. Polarity switching must be between 20 and 30 ms.
 26. Comprehensive compound databases and triggered MRM libraries with fully optimized LC conditions, samples and columns.
 27. Access to Optimized databases for antimicrobials and pesticides is highly desirable³.
 28. A one year warranty is required, including all labor, parts and travel expenditures.
 29. Overnight delivery of parts across North America is desirable to minimize disruption of analytical activities post-warranty⁴.
 30. Must include a printer (black and white printing acceptable).

Explanations for specific requests:

1. Higher sensitivity is highly desirable to achieve lower Method and Instrument detection limits (MDLs and IDLs, respectively). The compounds we are interested in include pesticides, antimicrobials and hormones, which can be present at sub-parts per trillion (ppt) levels in a variety of matrices including water, soil, manure. The value included in the specifications is 100,000:1, but instruments with an even higher ratio would be better for our work.
2. The Linear Dynamic Range is the value that defines the low and high limits of signal detection. The linear dynamic range is another qualifier of sensitivity. With compounds of interest such as estrogens and hormones, which are bioactive at extremely low concentrations but could be present at high concentrations, the wider the range, the better to capture all possible quantification scenarios. 1×10^6 is really the minimum, the higher the value, the better the range.
3. Any trace residue analysis laboratory has to spend an inordinate amount of time developing methods specific for their instrumentation and conditions. Having access to optimized methods in databases for groups of compounds of interests would therefore save a lot of time, resources and money to our laboratory and therefore to all of our collaborators.
4. The instrument will be used virtually all the time once set-up and running. Any disruption to the workload is a major inconvenience since several of the compounds of interest to us and our partners are time-sensitive. Therefore, overnight delivery of parts across North America or Canada is of high value to our operations.

List of abbreviations:

APCI: Atmospheric Pressure Chemical Ionization

APPI: Atmospheric Pressure Photo Ionization

Da: Dalton

ESI: Electrospray Ion Source

LC/MS: Liquid chromatograph/mass spectrometry

MRM: Multiple Reaction Monitoring

MS: Mass Spectrometer

MS/MS: tandem Mass Spectrometer

QQQ: Triple Quadrupole mass spectrometer

S:N: Signal-to-noise ratio

SIM: Selected Ion Monitoring

UHPLC-MS/MS: Ultra High Pressure Liquid Chromatograph Tandem Mass Spectrometer

V: Volts

VAC: Volts Alternative Current (or V AC)

ANNEX B**BASIS OF PAYMENT**

Item	Description	Quantity	Price
1	UHPLC-MS/MS Ultra High Pressure Liquid Chromatograph Tandem Mass Spectrometer As detailed at Annex A Requirement including all commissioning, warranty and delivery charges	1 each	\$ _____
			GST \$ _____
			Total \$ _____

ANNEX C

EVALUATION CRITERIA

INSTRUCTIONS:

1. The Bidder should cross reference where each of the Mandatory Criteria can be found within the offer.
2. The Bidder must clearly demonstrate how they meet each criteria listed below.
3. To clearly demonstrate compliance with the mandatory criteria, Bidders must respond with complete specifications and/or descriptive literature of the equipment being offered.
4. The complete specifications and/or descriptive literature should be submitted with the proposal, but may be submitted afterwards. If the complete specifications and/or literature are not submitted as requested, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the offer non-responsive.

Item No.	Description	Meets Yes or No	Cross Reference Page number
1	The system must include a UHPLC system and pump, as well as tandem MS/MS (triple quad, QQQ), autosampler with tray and syringe, Nitrogen generator as well as workstation PC (computer and monitor) and software (with data analysis license) required for running the instrument, including control features and capability to separate, identify and quantify molecules of interest.		
2	Must include installation, set-up and specification testing.		
3	Must include familiarization training (3 days minimum) with on-site assistance.		
4	Autosampler trays must have the capacity for at least 120 vials and include injection loop.		
5	HPLC Syringe must be included.		
6	Power must be suitable for Canadian standards: 100-120 V (or 200-220 VAC), 1000 VA max, 50/60 Hz, 15A circuit.		
7	Must have a multicolumn thermostat with a capacity of 6-8 columns, a		

	temperature range of 4-110 °C and include heat exchanger and required fittings.		
8	6 port valve is necessary, including valve head.		
9	Pump needs noise suppression system.		
10	Must have a LC/MS APCI Source including spray chamber, corona discharge needle, nebulizer, APCI vaporizer and test calibration kit.		
11	Must have a high speed pump with good power range (1300 bar) allowing for 5 mL/min flow, binary high pressure mixing. Should come with seal wash, tool kit, solvent cabinet, bottles.		
12	Scan modes must include MS scan, MS/MS product ion scan, Multiple Reaction Monitoring (MRM), MS/MS neutral loss/gain scan, precursor ion scan, Selected Ion Monitoring (SIM).		
13	Must have the capability to accommodate additional ionization modes (such as APPI).		
14	Single point of control: Method must be capable to fully control the UHPLC system and triple quadrupole (and communication between the two) with a single point data system (so that should conditions not be optimum, the system stops injection of the sample).		
15	Full auto-tune optimization of the instrument sensitivity and mass calibration.		
16	Sensitivity: Signal to noise (S:N) ratio requirements should be at least 100,000:1 (MS/MS mode, electrospray on-column, for both ESI positive and negative). The higher the ratio, the better ¹ .		
17	Sensitivity for instrument detection limit must be of at least 0.75 fg reserpine/chloramphenicol in positive/negative mode (or equivalent).		
18	Linear dynamic range must be of at least 1×10^6 (the higher is the linear dynamic range, the better ²).		
19	Mass range must be from 2-2,050 Da.		
20	Mass stability: 0.1 Da or less in 24 hrs.		

21	Maximum scan speed must be at least 12,000 Da/second.		
22	Maximum Multiple Reaction Monitoring (MRM) acquisition rate must be 500 MRMs/second or more.		
23	MRM transitions should be of minimum 450 per time segment, with a minimum of 40,000 ion transitions per method.		
24	Minimum MRM dwell time must be 1 ms.		
25	Polarity switching must be between 20 and 30 ms.		
26	Comprehensive compound databases and triggered MRM libraries with fully optimized LC conditions, samples and columns.		
27	Access to Optimized databases for antimicrobials and pesticides is highly desirable ³ .		
28	A one year warranty is required, including all labor, parts and travel expenditures.		
29	Overnight delivery of parts across North America is desirable to minimize disruption of analytical activities post-warranty ⁴ .		
30	Must include a printer (black and white printing acceptable).		
31	Mandatory completion of all deliverables on or before March 31, 2016.		